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1888



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University of the State of New York.

ACADEMIC EXAMINATION PAPERS.

NOVEMBER, 1888.

By Transfer

OCT 28 1912

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18305 PX

University of the State of New York.

32ND ADVANCED ACADEMIC EXAMINATION.

ALGEBRA.

(Through Quadratics.)

Monday, November 19, 1888-Time, 9:30 A. M. to 12:30 P. M. only.

40 credits, necessary to pass, 30.

1. Write the fraction which has for the numerator, the square root of x plus the cube root of y, multiplied by m fifth power inereased by six times x square y cube; and the denominator, the cube root of m plus the fifth root of n multiplied by the binominal 2. Simplify $3(x+a)(y+b) - \langle -m \lceil c - (d-g) \rceil \rangle \dots$ 3. Explain and illustrate by examples, the treatment of a minus sign of a subtrahend, and of minus into minus in multiplication. 4. Multiply a - b + c, by a + b - c, and find the value of the product when a=9, b=4, c=3 5 Expand (1+c) (1+c) (1-c) $(1+c^2)$ 6. The dividend is $x^{n} + x^{2n}y^{n} + y^{n}$; the quotient is $x^{2n} - y^{n}$ $x^n y^n + y^n$; what is the divisor? 7. Is $m^0 + x^0$ divisible by m + x; by m - x? 8. Reduce the fraction $\frac{a^3 + 2ba^3 + 3b^2a^2}{2a^4 - 3ba^3 - 5b^2a^2}$ to its lowest terms. 9. Simplify $\frac{1+x}{1+x+x^2} - \frac{1-x}{1-x-x^2} + \cdots$ 10. What is the rule for transposing a term from one member of an equation to the other? What is the principle?..... 11. On a disabled steamer there were 343 persons; there were twice as many men as women, and twice as many women as chil-All the children, $\frac{4}{7}$ of the women and $\frac{1}{4}$ of the men were How many were saved?..... 12. Solve, by comparison, $\begin{cases} 7y - 3x = 139 \\ 2x + 5y = 91 \end{cases}$ 13. Solve $mx^2 - 1 = \frac{x (m^3 - n^2)}{mn}$ 14. The sum of the areas of two square fields is 1,300 square

rods, and it requires 200 rods of fence to enclose both. What is the area of each field?....

⁴ University of the State of New York.

32ND ADVANCED ACADEMIC EXAMINATION.

AMERICAN HISTORY.

Monday, November 19, 1888.—Time, 1:30 to 4 P. M. only.

48 credits, necessary to pass, 36.

1. Give a brief account of the explorations of the Cabots, and state the real importance of John Cabot's voyage to America. 2 2. Within what states is the territory now included, which the Dutch elaimed by right of discovery?
 5. State the cause of King Philip's War, and describe the battle which resulted in the destruction of the Narragansetts
7. State the circumstances of the settlement of Maryland, also of Rhode Island; what great principle was common to both these Colonies?
8. Give the name of the greatest of the Dutch Governors of New York; briefly describe some of the habits and customs of the people under the Dutch rule
what troubles arose from this system?
Kansas-Nebraska border warfare; what effect did this policy have upon the settlement of those States?
15. Describe the invention of the cotton gin, stating the name of the inventor, and the effect of the invention upon the later history of the United States
THE AMERICAN REVOLUTION.—EVENTS OF 1778-1779-1780.
16. Where and in what year did the Wyoming massacre occur? Briefly describe it
of Stony Point
20. Describe the battle of Camden, and tell what distinguished officer was killed in the battle?
21. Describe the treason of Benedict Arnold at West Point, stating the causes which led Arnold to make the attempt; the
manner of its discovery and the rewards given by the British to the traitor

32ND ADVANCED ACADEMIC EXAMINATION.

PHYSICAL GEOGRAPHY.

Tuesday, November 20,	1888—Time,	1:30	to 4. P.	М.,	only.
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48 credits, necessary to pass, 36.

46 Creates, necessary to pass, 50.
1. What is the length of the longest day at the equator; at the
Tropic of Cancer? Explain why these days differ in length 3
2. In which direction does the earth rotate and what is the prin-
cipal result of the rotation? 2
3. Where are the magnetic poles of the earth located with refer-
ence to the geographical poles? 1
4. Mention two regions of the earth that may be called volcanic
regions 2
5. Why are volcanoes on islands or near the shores of conti-
nents? 1
6. What is believed to be the chief cause of earthquakes?
Describe a destructive earthquake of recent date 2
7. What is the general form of the land masses of the globe? 1
8. In which direction has Europe the greatest length? 1
9. With respect to the oceans where are the highest mountains
found, and in what zone are the highest plateaus found? 2
10. Mention two great desert regions of the earth and state the
cause of the desert character of the larger 3
11. What is meant by relief forms, and why is their study
important? 2
12. Describe a section of South America from east to west (use
a diagram if preferred) 2
13. Describe the formation of coral islands 2
14. Explain the difference between waves and tides with regard
to their causes, and the motion of water produced by each 4
15. Draw an outline map of the State of New York. Upon it
beginning at the western boundary, draw a line representing the
watershed from the western and northern slope of which the
water flows into the St. Lawrence system 3
16. Give the composition of the atmosphere and explain how the
weight of the atmosphere is measured
17. What is a land breeze; a sea breeze? Explain the cause of
each 3
18. What are isothermal lines and why do they not coincide
with parallels of latitude?
19. Describe two forms of clouds and give their names 4
20. Describe monsoons as to their nature, location and cause. 3
21. Mention a country or locality where each of the following
is produced; quinine; cinnamon 2
22. In which zone does the human family appear in its highest
physical perfection? 1

⁶ University of the State of New York.

32ND ADVANCED ACADEMIC EXAMINATION.

PHYSIOLOGY.

Wednesday, November 21, 1888—Time, 1:30 to 4 P. M., only.
48 credits, necessary to pass, 36.
1. What is the use of the mineral, and what of the animal mat-
ter in the bones?
2. What are joints? In what two ways are the surfaces of
joints shielded from friction? 3
3. Describe the spinal column and explain the use of the car-
tilaginous portion
4. Explain the difference between muscles and tendons by
describing each 2
5. Why is physical exercise necessary? 1
6. Why should severe muscular exercise not be taken directly
after a meal; why not after a long fast? 2
7. Mention two important functions performed by the skin 2
8. Explain the relation between health and cleanliness 2
9. Compare the effects of a cold bath with those of a warm bath,
and mention the classes of persons to which each is best
adapted 4
10. Make a drawing of a tooth indicating the parts of which it
is composed 2
11. What will be the result if we live on one kind of food only?
Why will this be the result? 2
12. Describe the functions of the salivary glands and of the
bile 2
13. Describe the effect produced by alcoholic liquors upon the
mucous lining of the stomach when brought in contact with it.
What effect has alcohol upon digestion? 2
14. What effect upon the blood has exercise in the open air? 1
15. Describe the course of the blood in its circulation through
the body from the right auricle to the right auricle again 3
16. Explain the difference between venous and arterial blood,
and how one is changed to the other 3
17. Make a drawing showing the shapes and relative positions of
the larynx, trachea, and lungs 3
18. What is the pleura? How does it compare in office with the
pericardium? 2
19. What is proper ventilation and why is it essential? 2
20. Explain the difference between motor nerves and sensory
nerves 2
21. Describe the arrangement of the gray and the white matter
in the cerebrum 2
22. What part of the eye regulates the amount of light admitted
and how does it regulate it? 2

32ND ADVANCED ACADEMIC EXAMINATION.

RHETORIC AND ENGLISH COMPOSITION.

THURSDAY, November 22, 1888—Time, 9:30 A. M. to 12 M., only.

48 credits,	necessary	to	pass,	36.

40 Crowns, necessary to pass, 50.
1. Write and properly punctuate and capitalize a sentence which
shall contain a quotation within a quotation
2. State the difference between purity and propriety of diction. 2
3. Define a balanced sentence. Give an example 2
4. Define antithesis; show wherein it differs from simile,
metaphor and allegory 4
5. Wherein does epigram resemble antithesis? Wherein do
they differ? 2
6. What is personification? State why the English language is
especially adapted to its use 2
7. Define irony, and give an example
8. State the difference between irony, sarcasm and humor 3
9. Point out the figures in the following sentences: (a) He was
a Chameleon to the hand that fed him. (b) Next, anger rushed,
his eyes on fire. (c) Come to the Bridal Chamber, Death! (d)
The Red Coats turned and fled. (e) Count noses 5
10. What is an oration; how does it differ from a lecture, and
how from an address?
11. What important qualities are required in the writing of
history 3
12. State the difference between biography and memoirs 2
13. Mention the four varieties of feet in common use in English
poetry, and write a line to illustrate each 4
14. Mention the terms used to indicate the number of feet in
lines of poetry, and give the meaning 3
15. Indicate the scansion and mention the name of the foot and
metre of each of the following lines:
(a) Thou Bell by billows swung.
(b) Back into my chamber turning
All my soul within me burning.
(c) While every Highland Glen
Sends our shout back again.
(d) And the might of the Gentile
unsmote by the sword 4
16. Give the meaning of each of the following abbreviations:
Mss · DCL · BC · Cf · Q.E.D

32ND ADVANCED ACADEMIC EXAMINATION.

PLANE GEOMETRY.

Tuesday, November 20,1888—Time, 9:30 A. M. to 12:30 P. M. only.

40 credits, necessary to pass, 30. 1. Define and illustrate by a figure each of the following: alter-

nate angles; perpendicular line; equilateral triangle; rhombus; circumference; sector 6 2. Mention four cases in which two right-angled triangles are equal to each other..... 3. Why is it impossible to construct a triangle whose sides are respectively 5, 10, and 20 feet?..... 4. Mention four cases in which two triangles are similar..... 5. How many degrees in an angle inscribed in an arc of 180°; in an arc of 120°?.... 6. Prove that two parallels are everywhere equally distant... 7. Prove that the diagonals of a parallelogram bisect each other..... 8. Prove that the radius which is perpendicular to a chord bisects that chord and also the arc subtended by it 9. Prove that the square described on the hypothenuse of a right-

the other two sides...... 4 10. Prove that the perimeters of similar regular polygons are to each other as the radii of their circumscribed or inscribed circles; and their areas are to each other as the squares of those radii... 4

angled triangle is equivalent to the sum of the squares described on

- 11. Make and explain the following constructions:
 - (a) To trisect a right angle..... (b) The three sides of a triangle being given, to construct
 - the triangle.....
 - (c) To construct a fourth proportional to three given straight lines.....
- 12. The chords of a circle intersect; the segments of one chord are respectively 4 feet and 9 feet, and one segment of the other chord is 8 feet; find the remaining segment.....

Carefully read and obey the following directions:
Do you now, at the close of this examination, conscientiously declare that you had no previous knowledge of the questions to be proposed, that you have neither given to any other scholar, nor received from any source, explanation or other aid in answering any of them? If so, write in the next line after the end of your set of answers, near the right side of the paper, the words

"I do SO declare."

and underneath subscribe your name.

Every set of papers lacking this full declaration and signature, however satisfactory, in other respects, will be returned, on the presumption that the required

declaration could not conscientiously be made.

Fold your MS. in proper form for filing, and indorse the last leaf with the name of the institution, your name, the subject, and the date of the

examination.

32ND ADVANCED ACADEMIC EXAMINATION.

ENGLISH LITERATURE.

Monday, November 19, 1888—Time, 1:30 to 4 P. M., only.

52 c	redits,	necessary	to	pass,	39.
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1. Give three English nouns derived from the Saxon, and their
equivalents derived from the Norman
2. Who was the author of "Utopia"? Give the subject of the
work, and the name of another work by the same author 3
3. Describe King Alfred's efforts to improve the literature of
England. What great literary work of his reign is still in
existence?
4. What is the character of Joseph Addison's prose; to what
magazine did he mainly contribute? 2
5. What are the characteristics of Macaulay's style? Mention
three of his essays
6. Contrast the poetry of Burns and Walter Scott, noting two
points of difference
7. To what school did the following authors belong: Words-
worth, Coleridge, and Southey? Give the title of a principal
work of each 4
8. Give the names of the authors of the following works: (a)
Tale of a Tub; (b) Peveril of the Peak; (c) The Virginians; (d)
Tale of Two Cities; (e) The Water Witch 5
9. Give the name of the author of each of the following poems:
(a) A man's a man for a' that; (b) The last Rose of Summer; (c)
To a Water fowl; (d) The One Horse Shay; (e) English Bards
and Scotch Reviewers 5
10. Give the names of three authors of the history of England. 3
11. Who wrote: "The Conquest of Peru"? 1
12. To what class of writers does each of the following belong:
(a) Philip Massinger; (l) Pope; (c) Gibbon; (d) Edwin P.
Whipple; (e) William D. Howells?
WHITTIER, AND SNOW BOUND.
13. Give a brief sketch of life of Whittier 2
14. With what great historical movement is his name connected?
Mention two poems produced by him during that movement 3
15. To what class of Whittier's poems does Snow Bound
belong? 1
16. What is the subject of the poem? Briefly outline the
thought as developed in the poem
17. Quote twenty lines of the passage beginning: "Shut in
from all the world without."
18. Mention the chief characteristics of Whittier's poetry 2

32ND ADVANCED ACADEMIC EXAMINATION.

HISTORY OF ENGLAND.

FRIDAY, November 23, 1888-Time, 9:30 A. M. to 12 M., only.

32ND ADVANCED ACADEMIC EXAMINATION.

MENTAL PHILOSOPHY.

Tuesday, November 20, 1888-Time 9:30 A. M. to 12 M. only.

40 credits, necessary to pass, 30.

To or ourse, mossisser, y to pass, so.
1. What is the subject treated of in mental philosophy? Is mental
philosophy an inductive science? Give a reason for your answer. 3
2. What is meant by faculties of the mind? Mention the princi-
pal mental faculties
3. What is consciousness? Give an example of a physical sen-
sation of which we are unconscious; of mental activity of which
we are unconscious 3
4. Define the terms subjective and objective as used in mental
philosophy and give an example of the proper use of each 4
5. Explain the difference between original and acquired sense-
preceptions and give an example of each 4
6. How is education possible in case of the absence of the senses
of sight and hearing? Mention an example of such an instance. 2
7. What is attention, why is it essential to real attainment, and
how may habits of attention be acquired? 3
8. What is memory? Mention three secondary laws of associa-
tion (or suggestion) 4
9. Show how imagination may be used properly and how it may
be abused 2
10. What is judgment and what are its products? 2
11. How does judgment differ from knowledge? 1
12. What is reasoning? What is a syllogism and for what is it
useful? Write a deductive syllogism 4
13. Mention three sources of evidence 3
14. Give any proof of an intuitive faculty and mention two con-
ceptions that are termed intuitions 3

and underneath subscribe your name.

Every set of papers lacking this full declaration and signature, however satisfactory, in other respects, will be returned, on the presumption that the required declaration could not conscientiously be made.

Fold your MS. in proper form for tiling, and indorse the last leaf with the name of the institution, your own name, the subject, and the date of the

examination.

Carefully read and ovey the padateing directions:
Do you now, at the close of this examination, conscientiously declare that you had no previous knowledge of the questions to be proposed, that you have neither given to any other scholar, nor received from any source, explanation or other aid in answering any of them? If so, write in the next line after the end of your set of answers, near the right side of the paper, the words "I do SO declare."

¹⁶ University of the State of New York.

32nd Advanced Academic Examination.

MORAL PHILOSOPHY.

FRIDAY, November 23, 1888—Time, 9:30 A. M. to 12 M., only.

40 credits, necessary to pass, 30.
1. What is moral law? Show that a violation of moral law is
followed by a penalty 2
2. What is meant by the moral quality of an action; and how
is this quality determined? 2
3. Show whether conscience is a sufficient guide in action. Show
how the power of conscience may be strengthened, and how it may
be weakened 3
4. Does a good motive justify a bad action? Explain your
answer by an example 2
5. Explain the difference between a right and a duty and give
an example of each 4
6. Why should every person secure the best possible education;
why guard the health of the body? 2
7. Mention two duties that parents owe to their children and
two duties that children owe to their parents 4
8. Mention two ways in which property may be acquired, and
why a person thus acquiring property has a right to it 4
9. What moral law is violated by preventing free discussion; by
refusing to reveal crime; by failing to keep a promise; by break-
ing an oath?4
10. Why is it our duty to help the unfortunate?
11. Should we be benevolent to the wicked? Give a reason for
your answer
12. Upon what are the rights of a majority based? 1
13. What rights have a minority and upon what are those rights
based?
14. Why should a citizen pay taxes; vote; accept office? 3
15. Mention two duties that the State owes to its citizens and show why it owes each
show why it owes each
•
(arefully read and chey the following directions:

Carefully read and chey the following directions:

Do you now, at the close of this examination, conscientiously declare that you had no previous knowledge of the questions to be proposed, that you have neither given to any other scholar, nor received from any source, explanation or other aid in answering any of them? If so, write in the next line after the end of your set of answers, near the right side of the paper, the words " I do SO declare."

and underneath subscribe your name.

Every set of papers lacking this full declaration and signature, however satisfactory, in other respects, will be returned, on the presumption that the required declaration could not conscientiously be made.

Fold your MS. in proper form for filing, and indorse the last leaf with the name of the institution, your own name, the subject, and the date of the examination.

32ND ADVANCED ACADEMIC EXAMINATION.

ASTRONOMY.

WEDNESDAY, November 21, 1888—Time 1:30 to 4 P. M. only.

44 credits, necessary to pass, 33.
- 1. Whose theory did Copernicus revive in his system? 1 2. Define rational horizon, celestial equator, ecliptic, equi-
• • • •
noxes
3. What is the shape of the earth's orbit, and what is the po-
sition of the sun as regards this orbit? 2
4. Describe the position of the earth with respect to the sun at
the solstices and the equinoxes 4
5. Give the names of two measurements reckoned from the first
point of Aries (or vernal equinox), and mention the circle on
which each measurement is made 4
6. What is refraction? What is its effect? Where is it
greatest? 3
7. What is meant by the moon's libration in latitude? In long-
itude? 2
8. What is an occultation? 1
9. Why is the number of lunar eclipses visible at a given place
greater than the number of solar eclipses? 1
10. Give the causes of Spring and Neap tides. How often does
each occur? 4
11. Mention three comets whose orbits are ellipses 3
12. Describe the zodiacal light, with regard to its shape, the
times of its appearance and its origin 3
13. At what rate does light travel? If the nearest fixed star
should be destroyed now, when would it disappear from our
view? 2
14. What is a sidereal day? A solar day? What causes the
difference in length between them? What is equation of time? 4
15. What fact caused confusion in the calendar of the ancients?
What change was made by Julius Caesar? By Pope Gregory? 3
*16. Illustrate by a diagram the aberration of light. Give the
cause
*16. Illustrate by a diagram the position of a planet in inferior
conjunction, and in quadrature
•
*The pupil is allowed to choose which of the two questions having the same number he will answer.

²⁰ University of the State of New York.

32nd Advanced Academic Examination.

BOTANY.

Wednesday, November 21, 1888—Time, 9:30 A.M. to 12 M. only.

40 credits, necessary to pass, 30.
1. Describe the cotyledons of a plant 2
2. What are biennial plants? Mention two 2
3. Diagram a cross section of an exogenous stem showing the
position of the parenchyma cells, fibro-vascular bundles and annual
rings 3
4. What are the living parts of a tree or shrub? 2
5. Describe the epidermis of a leaf
6. Describe the pentastichous or five-ranked arrangement of leaves
on the stem 2
*7. Distinguish determinate from indeterminate inflorescence
and give two examples of each class
*7. Discuss briefly the subject of teratology or retrogade meta-
morphosis
8. Is cross fertilization in plants the rule or exception? How is
it accomplished; and what is its value?
9. When is the calyx or corolla of a flower said to be per-
sistent? 2
*10. Give the maximum, minimum, and optimum temperature at
which common grains, as corn, wheat &c., grow 3
*10. Of what nature is the smut, observable in late summer, on
Indian corn and grain? 3
11. What is the essential organ of the stamen? 1
12. Define the placenta 2
13. Describe the so-called "circulation of sap" in a plant 2
14. What kind of fruits do the raspberry and blackberry plants
produce; the apple and pear; the orange?
15. Mention two common orchids 2
16. How do forests affect the water supply of a country.? Illus-
trate 3
17. Name three plants of the gymnospermous type 3
*The pupil is allowed to choose which of the two questions having the same number he will answer.

32ND ADVANCED ACADEMIC EXAMINATION.

CHEMISTRY.

THURSDAY, November 22, 1888—Time, 1:30 to 4 P. M., only.

44 credits, necessary to pass, 33.
1. Describe the preparation of sulphuric acid; write the re-
actions; give its chemical properties and its graphic formula. 4
2. Give the chemical name of each of the following: BaCl ₂ ,
$\mathrm{Cu_2O},\ \mathrm{Mn}\ \mathrm{O_2}$ 3
3. Explain the difference in composition between ferrous sulph-
ate and ferrous sulphide. From what acid was each obtained and
for what is each used ?
*4. Describe two processes by which impure water may be puri-
fied and in each case show how the impurities are removed 4
*4. Mention four binary compounds of nitrogen with oxygen,
and after each name write its formula 4
5. Explain the construction of the "safety lamp" used by miners,
and point out the principle upon which it is constructed 2
6. What is an alloy; an amalgam? Give an example of each. 4
7. Distinguish between physical changes and chemical changes
and give an example of each 4
8. Mention an instance where heat and one where electricity influences chemical action 2
*9. What is meant by the "combining weight" of a substance?
Illustrate this by an example. What is used as the standard of
combining weight and why is it used? 4
*9. Explain the difference between an acid and a base. Show
how each is formed and state the electrical condition of each 4
10. Describe the preparation of hydrogen by the use of zinc and
write the reactions 4
11. Mention two univalent (monadic) and two trivalent (tryadic)
elements 2
12. Mention the properties of iodine, its uses, and its principal
source 3
13. Make a drawing of a blast-furnace, and describe the process
of obtaining iron from the ore 4
14. How is alcoholic (vinous) fermentation caused? 1
*The pupil is allowed to choose which of the two questions having the same number he will answer.

²² University of the State of New York.

32ND ADVANCED ACADEMIC EXAMINATION.

DRAWING.

Monday, November 19, 1888-Time, 9:30 A. M. to 12 M., only.

The work to be done on sheets of drawing paper not smaller than 8 x 12 inches—
the Free Hand work upon one sheet, the Instrumental upon another sheet.

96 credits, necessary to pass, 72.

SHEET 1.—FREE HAND.

ARRANGEMENT OF WORK.—Place the paper with the long edges parallel to the front of the desk. Bisect the upper edge. Place a point an inch to the right of the point of bisection. From the second point sketch a vertical to the lower edge of the paper. Draw No. 1 in the left division, No. 2 in the right. Erase the division line when the drawings are complete.

REPRESENTATION.

1. Appearance of two solids below the eye. A cylinder 2" wide and 4" high; a square prism 2" wide and 4" high. Arrange these two models somewhat below the eye, touching each other, in any way you choose. Draw the appearance of the two models, drawing all invisible edges in light lines. Add a table line.

æ.	Appearance of cylinder	10
b.	Appearance of square prism	10
c.	Relative appearance of the two solids	12

DECORATION.

2. Name the three sources from which materials for decorative design may be obtained; designate the answers a, b and c, respectively, and illustrate each answer by two drawings, 2" high. Before beginning to write or draw, consider the space to be occupied, and plan a good arrangement of the answers and illustrations in the space.

Arrangement of answers and illustrations	5
a. Answer and illustrations	9
b. Answer and illustrations	9
c. Answer and illustrations	9

SHEET 2.—INSTRUMENTAL.

Arrangement of Work.—Place the paper with the long edge parallel to the front of the desk.

CONSTRUCTION.

3. Draw the front and bottom views of four solids, one of them being a triangular prism. Make the drawings of a size suited to the sheet. Arrange well on the sheet. Construct the drawings with instruments, and leave all construction lines visible.

Write the name of the solid below each bottom view, and also designate what kind of a triangular prism you have drawn.. 32

32ND ADVANCED ACADEMIC EXAMINATION.

GEOLOGY

FRIDAY, November 23, 1888-Time, 1:30 to 4 P.M. only.

44 credits, necessary to pass, 33.
1. Define fossil, vein, anticlinal strata, fault, formation, layer. 6
2. Distinguish between igneous and metamorphic rocks, and
mention an example of each 4
3. To which group of minerals does each of the following belong:
mica; sapphire; clay; agate? 4
4. What is dolomite and how does it differ in composition from
ordinary limestone? 2
5. What was the original position of stratified rocks? Make a
drawing showing dislocation of strata 2
6. Mention three geological effects produced by the action of the
water of the ocean
7. Describe two ways in which mountains have been produced
and mention an example of each 4
8. Give the names and characteristics of the four geological ages,
beginning with the earliest 4
9. To what time and age does the Potsdam (Primordial) period
belong and what is the characteristic fossil of that period? 3
10. To what geological time does the Devonian Age belong, in
what parts of New York State are found rocks belonging to this
age, and what two forms of animal life were most prevalent in it? 4
11. Draw an outline of North America as it was in Mesozic time,
mention three periods included in this time, and describe the kind
of rock characteristic of the third period 3
12. What caused the cold of the glacial period, and over what
part of North America did glaciers extend? 2
13. Mention some of the first indications of the existence of man
and state where they were found 2
14. Describe the manner in which the soil of the earth has been
formed 1

and underneath subscribe your name.

Every set of papers lacking this full declaration and signature, however satisfactory, in other respects, will be returned, on the presumption that the required declaration could not conscientiously be made.

Fold your MS. in proper form for filing, and indorse the last leaf with the name of the institution, your name, the subject, and the date of the

examination.

Carefully read and obey the following directions:
Do you now, at the close of this examination, conscientiously declare that you had no previous knowledge of the questions to be proposed, that you have neither given to any other scholar, nor received from any source, explanation or other aid in answering any of them? If so, write in the next line after the end of your set of answers, near the right side of the paper, the words "I do SO declare."

²⁴ University of the State of New York.

32ND ADVANCED ACADEMIC EXAMINATION.

PHYSICS ELEMENTARY.

Thursday, November 22, 1888—Time, 1:30 to 4 P. M., only. 48 credits, necessary to pass, 36.

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1. Explain the difference between atoms and molecules 2
2. Define tenacity, malleability, weight; and give an example of each
3. Explain the difference between adhesion and cohesion and give
an example of each
4. Upon what two things does the pressure of a liquid upon the
bottom of a vessel depend?
explain the principle upon which the press operates
*5. Make a drawing of a lifting pump, describe its parts, and state
the principle upon which it is constructed
plied in supplying a city with water? 1
7. Describe an experiment showing that the air has weight. Un-
der what circumstances does the air exert a pressure of about 15 pounds to the square inch?
8. Give Newton's laws of motion
*9. What is energy; and what is meant by the "conservation of
energy"?
spect they differ 2
10. If a bullet be dropped from a balloon one mile above the sur-
face of the earth, how long will the bullet be in reaching the
ground? 2 11. Give the general law of equilibrium of machines, and the
special law which applies to a system of movable pulleys with a single rope
single rope
12. In a lever of the second class what weight will a power of
100 pounds balance with a lever 10 feet long and the weight two feet from the fulcrum?
13. How does heat affect the volume of a body and how is this change explained?
change explained?
pressure steam engine 2
*15. State the principle upon which an echo is produced; upon
*15. Explain the difference between the fundamental tone and
overtones (harmonics) 2
16. Distinguish between a ray of light and a beam of light 2
17. Explain the difference between reflection and refraction of light
18. Describe by a drawing the effect of a concave mirror upon
parallel rays of light
19. What is meant by the "potential" of electricity; by an
" ohm?"
the principle upon which the telephone is constructed 3
* The pupil is allowed to choose which of the two questions having the same
number he will answer.

32ND ADVANCED ACADEMIC EXAMINATION.

ADVANCED PHYSICS.

Tuesday, November 20, 1888—Time, 1:30 to 4 P.M., only.

40 credits, necessary to pass, 30.
1. State what is meant by correlation of energy 1
2. A seconds pendulum at the level of the sea is so expanded by
the heat that it beats 52 times in a minute; how much is the ex-
pansion ?
3. A power of 50 lbs. applied to a screw driven by a lever $4\frac{1}{4}$ ft.
long lifts 400 lbs. How far apart are the threads of the serew?
Give the law 3
4. What was Torricelli's experiment? What instrument is con-
structed on the principle he discovered?
5. What is meant by the absolute zero of temperature; how is
it obtained? 3
6. Define latent heat 2
*7. Discuss fully Joule's equivalent 3
*7. How many lbs. of steam at 100°C. would be required to raise
1,000 lbs. of water from 0°C. to 50°C.?
8. What causes the polarization of the plates in electric bat-
teries ? 2
9. Describe the electrophorus and its use 2
10. Give Ohm's law for determining the strength of the electric
eurrent 2
11. How does a Ruhmkorff coil differ from an ordinary induc
tion coil? 2
12. Of what two parts do sound waves consist? In what direc-
tion do they vibrate? 3
13. Describe the phenomenon known as the interference of
sound 2
14. Can a sound wave be reflected? Prove your answer 2
*15. Explain by means of a diagram the action of a stereo-
scope 3
*15. Describe the result of a ray of sunlight acting on a drop of
water. Give an example 3
16. Discuss polarization of light
17. In concave mirrors where must the object be placed in order
that the image may be virtual? 2
18. What are actinic rays

*The pupil is allowed to choose which of the two questions having the same

number he will answer.

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32ND ADVANCED ACADEMIC EXAMINATION.

PLANE TRIGONOMETRY.

THURSDAY, November 22,1888—Time,9:30 A.M. to 12:30 P.M. only.

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36 credits, necessary to pass, 27.
1. Explain the difference between the characteristic and mantissa
of the logarithm of a whole number and that of a decimal frac-
tion 4
2. The logarithm of 87 is 1.939519. Find the logarithm of the
cube of 87, and state the principle employed 2
3. The natural sine of an arc 32° is .5299. What operation
must be performed on this natural sine to compute the logarithmic
sine of the same arc? Give reasons for the operation 2
4. Explain the principle upon which the algebraic signs of the
trigonometrical functions are determined, and give the sign of the
cosine in each of the four quadrants 4
5. Draw a diagram showing the relations between the tangent
of an arc and its sine and cosine, and deduce the equation showing
the value of the tangent
6. In a circle whose radius is 50 feet find the following: cosine
of 45°; tangent of 30°
8. Assuming the values of the functions of the sum and of the
difference of two arcs, prove that:
(1) $\sin 2a = 2 \sin a \cos a$ and show why your process is correct. 2
$(2)\cos p + \cos q = 2\cos \frac{1}{2}(p+q)\cos \frac{1}{2}(p-q)\dots 2$
9. Prove that in any right-angled triangle the perpendicular is
equal to the base multiplied by the tangent of the angle at the
base
10. Prove that in any plane triangle the sum of the sides includ-
ing either angle is to their difference as the tangent of half the
sum of the two other angles is to the tangent of half their differ-
ence
11. In the oblique-angled triangle A B C give the formula to
find a when C, B, and c are given
12. Explain by means of a diagram what measurements and
what computations are necessary to determine, trigonometrically,
the height of an inaccessable tower above a horizontal plane 3

32ND ADVANCED ACADEMIC EXAMINATION.

SOLID GEOMETRY.

Monday, November 19, 1888—Time, 1:30 to 4:30 P. M. only.
36 credits, necessary to pass, 27.
1. Define oblique prism; frustum of a pyramid; altitude of a
cone; cylinder; parallelopiped; radius of a cylinder
2. Prove that if a straight line is perpendicular to two straight
lines at their point of intersection it is perpendicular to the plane
of those lines 4
3. Write theorems including and completing the following con-
ditions:
(a) If a straight line is parallel to a line of a plane — 1
(b) If two angles, not situated in the same plane, have their
sides parallel and lying in the same direction — 1
(c) If a plane be passed through the diagonally opposite
edges of a parallelopiped —— 1
(d) If two parallelopipeds have a common lower base and
their upper bases between the same parallels —— 1
4. Prove that if a pyramid be cut by a plane parallel to the base:
(a) The edges and the altitude will be divided proportion-
ally 2
(b) The section will be a polygon similar to the base 2
5. Prove that any two opposite faces of a parallelopiped are
equal and parallel 2
6. Prove that the volume of any pyramid is equal to one third
the product of its base and altitude 2
7. Prove that similar pyramids are to each other as the cubes of
their homologous edges 3
8. What relation exists between volumes of similar cylinders; of
similar cones; of similar spheres?
9. Give the formula for finding each of the following: the vol-
ume of any prism; the lateral area (convex surface) of a prism;
the volume of the frustum of a triangular pyramid; the lateral
area (convex surface) of a cylinder; the volume of a cylinder; the
volume of a sphere
10 Find the number of square feet in the surface of a stone 12
TO THE ORDER OF SQUARE TOOLIN ORD SHITAGE OF A STORE 12

feet long, 3 feet wide and two feet high..... 2

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32ND ADVANCED ACADEMIC EXAMINATION.

ZOÖLCGY.

Wednesday, November 21, 1888-Time, 1:30 to 4 P. M. only.

WEDNESDAT, MOVEMBER 21, 1000—Thirt, 1.00 to 41. M. Only.
36 credits, necessary to pass, 27.
1. To what is the phenomenon, known as a phosphorescent
sea, attributable? 2
2. Account for the formation of barrier reefs about coral
islands 2
3. What principally distinguishes the Echinoderms from the
Coelenterates, and places them higher in the scale of animal life. 2
4. How long does it take an oyster to attain full growth; can
you give a reason for the origin of the popular aversion to eating
oysters between April and September? 2
5. Mention two air breathing mollusks 2
6. To what class do the Trilobites belong; where do we find
traces of them?
*7. Describe fully the nervous system of insects 3
*7. Give the life history of the dragon fly, (Libellulidæ) 3
8. Describe the metamorphosis of the Colorado beetle or potato
bug. Discuss its history and destructive powers 3
9. Give the names of the sub-classes of fishes under the class
Pisces, and mention an example of each
10. In what part of the water do the eggs of the mackerel and
cod develop?
11. How are the young of turtles hatched and nourished? 2
*12. Describe the porcupine. How does the animal defend itself from attack?
*12. Describe the structure of the foot and stomach of a
camel
13. How do bird's eggs compare in size proportionally with those
of other vertebrates?
14. Name some of the principal wading birds, and the localities
in which they are found
15. Describe fully the life of any Ruminant 2
16. How do hibernating animals sustain life during winter? 1
17. Give the general characteristics of the Primates 2
*The pupil is allowed to choose which of the two questions having the same
number he will answer.

32ND ADVANCED ACADEMIC EXAMINATION

CÆSAR'S COMMENTARIES.

WEDNESDAY, November 21, 1888.—Time, 9:30 A.M. to 12 M. only.

100 credits, necessary to pass, 75.

1. Translate:

- (a) His responsis ad Caesarem relatis iterum ad eum Caesar legatos cum his mandatis mittit: Quoniam tanto suo populique Romani beneficio affectus, quum in consulatu suo rex atque amicus a senatu appellatus esset, hanc sibi populoque Romano gratiam referret ut in colloquium venire invitatus gravaretur neque de communi re dicendum sibi et cognoscendum putaret, haec esse quae ab eo postularet: primum, ne quam multitudinem hominum amplius trans Rhenum in Galliam transduceret; deinde obsides quos haberet ab Aeduis redderet, Sequanisque permitteret ut quos illi haberent voluntate ejus reddere illis liceret.—Book I., 35.
- (b) Compluribus expugnatis oppidis Caesar, ubi intellexit frustra tantum laborem sumi neque hostium fugam captis oppidis reprimi neque his noceri posse, statuit exspectandam classem. Quae ubi convenit ac primum ab hostibus visa est, circiter ccxx naves eorum paratissimae atque omni genere armorum ornatissimae profectae ex portu nostris adversae constiterunt; neque satis Bruto qui classi praeerat, vel tribunis militum centurionibusque quibus singulae naves erant attributae, constabat quid agerent aut quam rationem pugnae insisterent.—Book III., 14.
- (c) Acie triplici instituta et celeriter octo milium itinere confecto, prius ad hostium castra pervenit quam quid ageretur Germani sentire possent. Qui omnibus rebus subito perterriti et celeritate adventus nostri et discessu suorum, neque consilii habendi neque arma capiendi spatio dato, perturbantur copiasne adversus hostem ducere, an castra defendere, an fuga salutem petere praestaret.

-Book IV., 14...... 42 2. Explain the mood of (a) referret, esse, reddere, (b) agerent, (c)

- - 5. What forms of the verb are (c) habendi and capiendi?....

- 8. Write the stem of each of the following nouns, and explain the formation of the nominative: (a) rex, voluntate, (b) classem. 6
- - 12. Decline in both numbers, (a) multitudinem, (c) rebus..... 4

 13. Conjugate, in the imperfect, indicative, active, (a) postu-

32ND ADVANCED ACADEMIC EXAMINATION.

SALLUST'S CATILINE.

Tuesday, November 20, 1888.—Time, 9:30 A. M. to 12 M. only.

100 credits, necessary to pass, 75.

- 1. Translate:
- (a) Postea vero quam in Asia Cyrus, in Graecia Lacedaemonii et Athenienses coepere urbis atque nationes subigere, lubidinem dominandi caussam belli habere, maxumam gloriam in maxumo imperio putare, tum demum periculo atque negotiis compertum est in bello plurumum ingenium posse. Quod si regum atque imperatorum animi virtus in pace ita ut in bello valeret, aequabilius atque constantius sese res humanae haberent, neque aliud alio ferri neque mutari ac misceri omnia cerneres. Nam imperium facile his artibus retinetur, quibus initio partum est. Verum ubi pro labore desidia, pro continentia et aequitate lubido atque superbia invasere, fortuna simul cum moribus immutatur. Ita imperium semper ad optumum quemque a minus bono transfertur.—Chapter 2.
- (b) Igitur talibus viris non labos insolitus, non locus ullus asper aut arduus erat, non armatus hostis formidolosus; virtus omnia domuerat. Sed gloriae maxumum certamen inter ipsos erat; sic se quisque hostem ferire, murum ascendere, conspici dum tale facinus faceret, properabat; eas divitias, eam bonam famam magnamque nobilitatem putabant; laudis avidi, pecuniae liberales erant; gloriam ingentem, divitias honestas volebant. Memorare possem, quibus in locis maxumas hostium copias populus Romanus parva manu fuderit, quas urbis natura munitas puguando ceperit, ni ea res longius nos ab incepto traheret.—Chapter 7.
- (c) Nunc vero non id agitur bonisne an malis moribus vivamus, neque quantum aut quam magnificum imperium populi Romani sit, sed haec cujuscumque modi videntur, nostra an nobiscum una hostium futura sint. Hic mihi quisquam mansuetudinem et misericordiam nominat? Jampridem equidem nos vera vocabula rerum amisimus; quia bona aliena largiri liberalitas, malarum rerum audacia fortitudo vocatur, eo res publica in extremo sita est. Sint sane, quoniam ita se mores habent, liberales ex sociorum fortunis, sint misericordes in furibus aerarii; ne illi sanguinem nostrum largiantur, et dum paucis sceleratis parcuut, bonos omnis perditum eant.—Chapter 52.
- - 4. Explain the mood of (b) faceret, fuderit, (c) vocatur, sint.

6. Give the principal parts of (a) cerneres, partum est, (b) conspici, (c) vivamus, sita est...... 10 7. Decline aliud (a) in the singular, quibus (a) in both numbers...... 6 8. Give a synopsis of transfertur (a) in the third person, singular number, indicative mood (both voices)..... 9. Give the derivation of the following words, with the meaning of each part: (a) subigere, retinetur, (b) liberales, (c) misericordes. 10. What figure of syntax in the first sentence of (a)?...... 11. Compare constantius (a), longius (b)..... 12. Conjugate agitur (c), in the voice, mood and tense here found..... OPTIONAL. TRANSLATION AT SIGHT. If the extract below is correctly translated 6 credits will be allowed, as compensating for errors in translation only of the paper.

Quae postquam sine mora facta sunt, jubet omnis perfugas vinctos adduci. Eorum magna pars, uti jussum erat, adducti; pauci, quum primum deditio coepit, ad regem Bocchum in Mauretaniam abierant. Igitur Jugurtha, ubi armis virisque et pecunia spoliatus est, quum ipse ad imperandum Tisidium vocaretur, rursus coepit flectere animum suum et ex mala conscientia digna timere.

—Jugurtha, Chap. 62...... 6

Carefully read and obey the following directions:

Do you now, at the close of this examination, conscientiously declare that you had no previous knowledge of the questions to be proposed, that you have neither given to any other scholar, nor received from any source, explanation or other aid in answering any of them? If so, write in the next line after the end of your set of answers, near the right side of the paper, the words

" I do SO declare."

and underneath subscribe your name.

Every set of papers lacking this full declaration and signature, however satisfactory, in other respects, will be returned, on the presumption that the required declaration could not conscientiously be made.

Fold your MS. in proper form for filing, and indorse the last leaf with the name of the institution, your own name, the subject, and the date of the

examination.

32ND ADVANCED ACADEMIC EXAMINATION.

VIRGIL'S ÆNEID.

Tuesday, November 20, 1888.—Time, 1:30 to 4 P. M. only.

100 credits, necessary to pass, 75.

1. Translate:

(a) Extemplo Aeneae solvuntur frigore membra;
Ingemit, et duplicis tendens ad sidera palmas
Talia voce refert: O terque quaterque beati,
Quis ante ora patrum Troiae sub moenibus altis
Contigit oppetere! o Danaum fortissime gentis
Tydide! mene Iliacis occumbere campis
Non potuisse tuaque animam hanc effundere dextra,
Saevus ubi Aeacidae telo iacet Hector, ubi ingens
Sarpedon, ubi tot Simois correpta sub undis
Scuta virum galeasque et fortia corpora volvit?

-Book I., 92-101

Dum sequor et nota excedo regione viarum,
Heu! misero coniunx fatone erepta Creusa
Substitit, erravitne via, seu lassa resedit,
Incertum; nec post oculis est reddita nostris.
Nec prius amissam respexi animumque reflexi,
Quam tumulum antiquae Cereris sedemque sacratam
Venimus; hic demum collectis omnibus una
Defuit, et comites natumque virumque fefellit.
Quem non incusavi amens hominumque deorumque,
Aut quid in eversa vidi crudelius urbe?

-Book II., 736-746.

(c) Vixi, et, quem dederat cursum fortuna, peregi;
Et nunc magna mei sub terras ibit imago.
Urbem praeclaram statui; mea moenia vidi;
Ulta virum, poenas inimico a fratre recepi;
Felix, heu nimium felix, si litora tantum
Numquam Dardaniae tetigissent nostra carinae!
Dixit, et, es inpressa toro, Moriemur inultae?
Sed moriamur, ait. Sic, sic iuvat ire sub umbras.
Hauriat hunc oculis ignem crudelis ab alto
Dardanus, et nostrae secum ferat omina mortis.

—Book IV., 653–662.

(d) Exspectata dies aderat nonamque serena Auroram Phaethontis equi iam luce vehebant, Famaque finitimos et clari nomen Acestae

Excierat ; laeto	conplebant litora	coetu,
Visuri Aeneadas,	pars et certare p	arati.

Exclerat; facto conplebant intora coetu,
Visuri Aeneadas, pars et certare parati.
—Book V., 104-108 70
2. Decline (b) coniunx 2
3. Explain the case of (a) quis, gentis, (c) os, inpressa 4
4. Explain the following infinitives: (a) occumbere, potuisse 2
5. What will you say of the indicative mood in substitit (b)?
Of tumulum, (b)? 2
6. Select from (a) a patronymic; from (b) an example of tmesis;
from (c) an example of synecdoche 3
7. What figure of etymology is found in the last line of (a)? 1
8. Who was Ceres? Who was Phaethon? 2
9. Who is referred to in fratre (c)? In Dardanus? 2
10. Select an example of eethlipsis 1
11. Give a reason for the quantity of the italicised vowel in each
of the following words: (a) solvuntur, sidera, Danaum, Iliacis,
(b) via, vidi 6
12. Give the present and the perfect stems of (a) effundere, (c)
tetigissent 4
13. What poet did Virgil take as his model in writing the
Aeneid? 1
OPTIONAL. TRANSLATION AT SIGHT.

NOTE: The correct translation of the passage below may count 8 credits to be allowed as compensating for errors in the translation only of the above paper.

> Talibus orabat Iuno, cunctique fremebant Caelicolae adsensu vario; cen flamina prima Cum deprensa fremunt silvis, et caeca volutant Murmura, venturos nautis prodentia ventos. Tum Pater omnipotens, rerum cui prima potestas, Infit; eo dicente deum domus alta silescit, Et tremefacta solo tellus; silet arduus aether; Tum Zephyri posuere; premit placida aequora pontus.

> > -Book X., 96-103.....

= just as.

VOCABULARY.

ceu

= gale. flamen

deprehendo = to confine.

prodo= to bring forth.

32ND ADVANCED ACADEMIC EXAMINATION.

VIRGIL'S ECLOGUES.

Monday, November 19, 1888.—Time, 9:30 A. M. to 12 M. only.

100 credits, necessary to pass, 75.

1. Translate:

(a) Nee sum adeo informis: nuper me in litore vidi,
Cum placidum ventis staret mare; non ego Daphnim
Iudice te metuam, si nunquam fallit imago.
O tantum libeat mecum tibi sordida rura
Atque humilis habitare casas, et figere cervos,
Haedorumque gregem viridi compellere hibisco!
Mecum una in silvis imitabere Pana canendo.

-Eclogue II., 25-31.

(b) Exstinctum Nymphae crudeli funere Daphnim Flebant; vos coryli testes et flumina Nymphis; Cum conplexa sui corpus miserabile nati Atque deos atque astra vocat crudelia mater. Non ulli pastos illis egere diebus Frigida, Daphni, boves ad flumina: nulla nec amnem Libavit quadrupes, nec graminis attigit herbam. Daphni, tuum Poenos etiam ingenuisse leones Interitum montesque feri silvaeque loquuntur.

-Eclogue V., 20-28.

- Quae nemora, ant qui vos saltus habuere, puellae Naides, indigno cum Gallus amore peribat?

 Nam neque l'arnasi vobis iuga, nam neque l'indi Ulla moram fecere, neque Aonie Aganippe.

 Illum etiam lauri, etiam flevere myricae;
 l'inifer illum etiam sola sub rupe iacentem Maenalus et gelidi fleverunt saxa Lycaei.

 Stant et oves circum;—nostri nec poenitet illas, Nec te poeniteat pecoris, divine poeta:

 Et formosus ovis ad flumina pavit Adonis—Venit et upilio; tardi venere subulci;
 Uvidus hiberna venit de glande Menalcas.
 Omnes, Unde amor iste, rogant, tibi?
 - —Eclogue X., 9-21.
 - (d) Haee sat erit, divae, vestrum cecinisse poetam,
 Dum sedet et gracili fiscellam texit hibisco,
 Pierides; vos haec facietis maxuma Gallo,
 Gallo, cuius amor tantum mihi crescit in horas,
 Quantum vere novo viridis se subiicit alnus.

2. Write in Latin the clause to which indice te (a) is equiv-
alent 2
3. Explain the mood of the following verbs: (a) fallit, libeat,
(b) ingemuisse 3
4. Give the syntax of (a) habitare, (b) testes 2
5. Give the principal parts of (a) fallit, canendo, (b) complexa,
attigit 8
6. Decline (b) crudelia, (c) nemora, in both numbers 5
7. Give other forms for (a) humilis, imitabere, (b) egere 3
8. Whom is Daphuis (b) thought to represent? 1
9. With what one of the goddesses was Adonis a favorite? 1
10. Write lines 5 and 6 of (c), marking quantity, division into
feet, and caesuras. What two figures of prosody in line 5? 6
11. What seenery is described in the Eclogues? 1
· OPTIONAL. TRANSLATION AT SIGHT.

If the extract below is correctly translated, 5 credits will be allowed which will be counted as making up deficiencies in the translation only of the above paper.

Hic pater omnipotens ter caelo clarus ab alto Intonuit, radiisque ardentem lucis et auro Ipse manu quatiens ostendit ab aethere nubem. Diditur hic subito Troiana per agmina rumor, Advenisse diem, quo debita moenia condant.

Aeneid VII., 141-145..... 5

Carefully read and obey the following directions:

Do you now, at the close of this examination, conscientiously declare that you had no previous knowledge of the questions to be proposed, that you have neither given to any other scholar, nor received from any source, explanation or other aid in answering any of them? If so, write in the next line after the end of your set of answers, near the right side of the paper, the words

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and underneath subscribe your name.

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Fold your MS. in proper form for filing, and indorse the last leaf with the name of the institution, your own name, the subject, and the date of the examina-

tion.

32ND ADVANCED ACADEMIC EXAMINATION.

CICERO, Six Orations.

FRIDAY, November, 23, 1888.—Time, 1:30 to 4 P. M. only.

100 credits, necessary to pass, 75.

1. Translate:

- (a) Omnia sunt externa unius virtute terra marique pacata: domesticum bellum manet, intus insidiae sunt, intus inclusum periculum est, intus est hostis. Cum luxuria nobis, cum amentia, cum scelere certandum est. Huic ego me bello ducem profiteor, Quirites: suscipio inimicitias hominum perditorum: quae sanari poterunt, quacumque ratione sanabo: quae resecanda erunt, non patiar ad perniciem civitatis manere. Proinde aut exeant aut quiescant aut, si et in urbe et in eadem mente permanent, ea quae merentur exspectent.—In Catilinam, II., 5.
- (b) Quibus pro tantis rebus, Quirites, nullum ego a vobis praemium virtutis, nullum insigne honoris, nullum monumentum laudis postulo praeterquam huius diei memoriam sempiternam. In animis ego vestris omnes triumphos meos, omnia ornamenta honoris, monumenta gloriae, laudis insignia condi et collocari volo. Nihil me mutum potest delectare, nihil tacitum, nihil denique eius modi, quod etiam minus digni adsequi possint.—In Catilinam, III., 11.
- (c) Qua re si propter socios nulla ipsi iniuria lacessiti maiores nostri cum Antiocho, cum Philippo, cum Aetolis, cum Poenis bella gesserunt, quanto vos studio convenit iniuriis provocatos sociorum salutem una cum imperii vestri dignitate defendere, praesertim cum de maximis vestris vectigalibus agatur? Nam ceterarum provinciarum vectigalia, Quirites, tanta sunt, ut iis ad ipsas provincias tutandas vix contenti esse possimus, Asia vero tam opima est ac fertilis, ut et ubertate agrorum et varietate fructuum et magnitudine pastionis et multitudine earum rerum, quae exportentur, facile omnibus terris antecellat.—Pro Lege Manilia, VI
- - 3. Explain the case of (c) iis, (d) nobis, annos......

OPTIONAL. TRANSLATION AT SIGHT.

If the passage below is correctly translated, 6 credits will be allowed, which will be counted as making up deficiencies in the translation only of this paper.

Adhuc, C. Caesar, Q. Ligarius omni culpa vacat. Domo est egressus non modo nullum ad bellum, sed ne ad minimam quidem suspitionem belli: legatus in pace profectus est: in provincia pacatissima ita se gessit, ut ei pacem esse expediret. Profectio certe animum tuum non debet offendere: num igitur remansio? Multo minus. Nam profectio voluntatem habuit non turpem, remansio necessitatem etiam honestam.—Pro Ligario, II.... 6

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Fold your MS. in proper form for filing, and indorse the last leaf with

the name of the institution, your name, the subject, and the date of the examination.

32ND ADVANCED ACADEMIC EXAMINATION.

LATIN PROSE COMPOSITION.

THURSDAY, November 22, 1888.—Time, 1:30 to 4 P. M. only,

48 credits, necessary to pass, 36.

Translate:

- 8. The Helvetians, also, excel the remaining Gauls in valor, because they contend with the Germans in almost daily battles.. 5
- 10. Divico replied, that the Helvetians had been so trained by their ancestors that they were accustomed to receive hostages, not to give them; that the Roman people was a witness to that fact. 10
- 11. On the following day they moved the camp from that place. Caesar did the same, and sent forward his cavalry to see into what regions the enemy went. (Use relative clause of purpose)...... 8

VOCABULARY.

a match for = par.= fallax. delusive rashly = temere. dreary = tristis. excel = pruecedo.daily = quotidianus. =instituere.to train = perfect of consuesco. to be accustomed witness = testis. to send forward = praemittere. region = pars.

32ND ADVANCED ACADEMIC EXAMINATION.

XENOPHON'S ANABASIS.

Monday, November 19, 1888.—Time, 1:30 to 4 P. M. only.

100 credits, necessary to pass, 75.

1. Translate:

(a) Book I., Chap. IV., 14, 15:

"Ανδρες ἐὰν ἐμοὶ πεισθῆτε, οὔτε κινδυνεύσαντες οὔτε πονήσαντες τῶν ἄλλων πλέον προτιμήσεσθε στρατιωτῶν ὑπὸ Κύρου. Τί οὖν κελεύω ποιῆσαι; Νῦν δεῖται Κῦρος ἔπεσθαι τοὺς "Ελληνας ἐπὶ βασιλέα· ἐγὼ οὖν φημι ὑμᾶς χρῆναι διαβῆναι τὸν Εὐφράτην ποτ αμὸν πρὶν δῆλον εἶναι ὅ τι οἱ ἄλλοι "Ελληνες ἀποκρινοῦνται Κύρῳ. "Ην μὲν γὰρ ψηφίσωνται ἔπεσθαι, ὑμεῖς δόξετε αἴτιοι εἶναι, ἄρξαντες τοῦ διαβαίνειν· καὶ ὡς προθυμοτάτοις οὖσιν ὑμῖν χάριν εἴσεται Κῦρος καὶ ἀποδώσει· ἐπίσταται δ' εἴ τις καὶ ἄλλος· ἢν δι ἀποψηφίσωνται οἱ ἄλλοι, ἄπιμεν μὲν ἄπαντες τοὔμπαλιν· ὑμῖν δ', ὡς μόνοις πειθομένοις, πιστοτάτοις χρήσεται καὶ εἰς φρούρια καὶ εἰς λοχαγίας· καὶ ἄλλου οὖτινος ὰν δέησθε, οἶδα ὅτι ὡς φίλοι τεύξεσθε Κύρου.

(b) Book II., Chap. III., 24, 25, 26:

- - (b) πολλῶν, in plural

7. What form of the verb might be used instead of
ϵ φρόντιζον (b), line 4 ℓ
8. Explain the use of ω s (a), line 7
9. Give the simple stem (or verb stem) of each of the follow-
ing verbs : (a) ἄρξαντες, διαβαίνειν ; (b) ἔλεγεν 3
10. Give a synopsis of $\pi o i \epsilon \omega$ in the third person singular
of the indicative, active; of $\pi\epsilon \ell\theta\omega$ in the third person sin-
gular of the indicative, middle 6
11. Compare αἴτιοι, προθυμοτάτοις (a) 2
12. Give the positive of $\pi\lambda\epsilon'$ (a) ; form an adverb from
$ \mathring{a}\xi \iota ον (b)$
OPTIONAL TRANSLATION AT SIGHT

Note: If the extract below is correctly translated, 5 credits will be allowed which will be counted as making up deficiencies in the estimate of the translation only of the above paper.

Book VII., Chap. I., 13, 14:

'Ο δὲ 'Αναξίβιος συγκαλέσας τοὺς στρατηγοὺς καὶ τοὺς λογαγούς έλεξε Τὰ μὲν ἐπιτήδεια, ἔφη, λαμβάνετε ἐκ τῶν Θρακίων κωμῶν εἰσὶ δὲ αὐτόθι πολλαὶ κριθαὶ καὶ πυροὶ καὶ τἄλλα τὰ έπιτήδεια· λαβόντες δὲ πορεύεσθε εἰς Χεβρόνησον, ἐκεῖ δὲ Κυνίσκος ύμιν μισθοδοτήσει. Έπακούσαντες δέ τινες τῶν στρατιωτῶν ταῦτα η καὶ τῶν λοχαγῶν τις διαγγέλλει εἰς τὸ στράτευμα........

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32ND ADVANCED ACADEMIC EXAMINATION.

HOMER'S ILIAD.

WEDNESDAY, November 21, 1888-Time, 1:30 to 4 P.M. only.

100 credits, necessary to pass, 75.

1. Translate:

(a) Book I., 43-52:

"Ως ἔφατ' εὐχόμενος · τοῦ δ' ἔκλυε Φοῖβος 'Απόλλων. Βῆ δὲ κατ' Οὐλύμποιο καρήνων, χωόμενος κῆρ, Τόξ' ὤμοισιν ἔχων ἀμφηρεφέα τε φαρέτρην · "Εκλαγξαν δ' ἄρ' ὀϊστοὶ ἐπ' ὤμων χωομένοιο, Αὐτοῦ κινηθέντος · ὁ δ' ἤιε νυκτὶ ἐοικώς. "Εζετ' ἔπειτ' ἀπάνευθε νεῶν, μετὰ δ' ἰὸν ἔηκεν · Δεινὴ δὲ κλαγγὴ γένετ' ἀργυρέοιο βιοῖο. Οὐρῆας μὲν πρῶτον ἐπώχετο καὶ κύνας ἀργούς · Αὐτὰρ ἔπειτ' αὐτοῖσι βέλος ἐχεπευκὲς ἐφιείς, Βάλλ' · αἰεὶ δὲ πυραὶ νεκύων καίοντο θαμειαί.

(b) Book II., 16-27:

"Ως φάτο · βῆ δ' ἄρ' "Ονειρος, ἐπεὶ τὸν μῦθον ἄκουσεν. Καρπαλίμως δ' ἵκανε θοὰς ἐπὶ νῆας 'Αχαιῶν · Βῆ δ' ἄρ' ἐπ' 'Ατρείδην 'Αγαμέμνονα · τὸν δ' ἐκίχανεν Εὕδοντ' ἐν κλισίη, περὶ δ' ἀμβρόσιος κέχυθ' ὕπνος. Στῆ δ' ἄρ' ὑπὲρ κεφαλῆς, Νηληΐω υἶι ἐοικώς, Νέστορι, τόν ῥα μάλιστα γερόντων τῖ' 'Αγαμέμνων · Τῷ μιν ἐεισάμενος προςεφώνεε θεῖος "Ονειρος · Εὕδεις, 'Ατρέος υἱὲ δαΐφρονος, ἱπποδάμοιο;

Οὐ χρη παννύχιον εὕδειν βουληφόρον ἄνδρα, *Ω λαοί τ' ἐπιτετράφαται, καὶ τόσσα μέμηλεν. Νῦν δ' ἐμέθεν ξύνες ὧκα · Διὸς δέ τοι ἄγγελός εἰμι, "Ος σευ, ἄνευθεν ἐων, μέγα κήδεται ἦδ' ἐλεαίρει.

(c) Book III., 171–177:

Τον δ' Ἑλένη μύθοισιν ἀμείβετο, δῖα γυναικῶν · Αἰδοῖός τέ μοί ἐσσι, φίλε ἑκυρέ, δεινός τε · 'Ως ὄφελεν θάνατός μοι άδεῖν κακός, ὁππότε δεῦρο Υἰέϊ σῷ ἐπόμην θάλαμον γνωτούς τε λιποῦσα, Παῖδά τε τηλυγέτην καὶ ὁμηλικίην ἐρατεινήν. 'Αλλὰ τάγ' οὐκ ἐγένοντο · τὸ καὶ κλαίουσα τέτηκα.— Τοῦτο δέ τοι ἐρέω, ὅ μ' ἀνείρεαι ἠδὲ μεταλλậς ·

(d) Book III., 390-395:

Δεῦρ' ἴθ' · 'Αλέξανδρός σε καλεῖ οἶκόνδε νέεσθαι. Κεῖνος ὄγ' ἐν θαλάμφ καὶ δινωτοῖσι λέχεσσιν, Κάλλεί τε στίλβων καὶ εἵμασιν· οὐδέ κε φαίης

' Ανδρὶ μαχησάμενον τόνγ' ἐλθεῖν, ἀλλὰ χορόνδε " Ερχεσθ', ἢὲ χοροῖο νέον λήγοντα καθίζειν.
"Ως φάτο τ $\hat{\eta}$ δ' ἄρα θυμδν ἐνὶ στήθεσσιν ὅρινεν \dots 70
2. Give the Attic forms for (a) βη, Οὐλύμποιο, ἤιε, αὐτοῖσι;
(b) ἄκουσεν, ἐπιτετράφαται; (c) ἐσσι 7
3. From what verb is each of the following, and where
is it made: (a) $\kappa \iota \nu \eta \theta \acute{\epsilon} \nu \tau \sigma s$, "E\(\xi \epsilon \tau'\); (b) $\kappa \acute{\epsilon} \chi \nu \theta'$; (c) $\lambda \iota$ -
ποῦσα, ἐρέω?
4. To what class of derivatives does ' $A\tau\rho\epsilon i\delta\eta\nu$ belong?
5, Give the case and syntax of (a) κῆρ, αὐτοῦ; (b) γερ-
όντων ; (d) χοροῖο
6. Copy the 4th and 5th lines of (a) marking quantity,
division into feet, and caesuras
7. Where was the Olympus mentioned in (a) ? 1
8. Give the syntax of (b) εὔδειν; (c) ἀδεῖν
9. Who is referred to in $\Upsilon i \in \sigma \hat{\varphi}(c)$?
OPTIONAL. TRANSLATION AT SIGHT.
If the extract below is correctly translated, 6 credits will be allowed which will be counted as making up deficiencies in the translation only of the above paper.
Book V, 115–120:
Κλθθί μοι αἰγιόχοιο Διὸς τέκος, `Ατρυτώνη,
Εἴποτέ μοι καὶ πατρὶ φίλα φρονέουσα παρέστης
$\Delta \eta \ddot{\iota} \psi \dot{\epsilon} \nu \pi \circ \lambda \dot{\epsilon} \mu \psi, \nu \dot{\nu} \nu a \dot{\nu} \dot{\tau} \dot{\epsilon} \mu \dot{\epsilon} \phi \dot{\iota} \lambda a \iota, A \theta \dot{\eta} \nu \eta$
Δὸς δέ τέ μ' ἄνδρα έλεῖν, καὶ ἐς ὁρμὴν ἔγχεος ἐλθεῖν,
"Ος μ' έβαλε φθάμενος, καὶ ἐπεύχεται, οὐδέ μέ φησιν
Δ ηρον ἔτ' ὄψεσθαι λαμπρον φάος ἢελίοιο 6

Vocabulary.

'Ατρυτώνη = the Unwearied. φίλα φρονέουσα = kindly minded.όρ*μήν* = reach. *ἐπεύχομαι* = boast.

Carefully read and obey the fillewing directions:
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examination.

32ND ADVANCED ACADEMIC EXAMINATION.

GREEK PROSE COMPOSITION.

WEDNESDAY, November 21, 1888.—Time, 1:30 to 4 P. M only.

40 credits, necessary to pass, 30.

Translate into Greek:

- 3. After those things Chirisophus said: "Now if there is need of anything else besides that which Xenophon speaks of, it will be possible to do it immediately. And it seems to me to be best to vote as quickly as possible on the things which he has said; and let any one to whom these things seem good raise his hand."...... 12
- 4. They sent him to the army, although he was not worthy (use participle.)..... 2
 - 5. May the gods give us the victory6. O that you had so great power!

Vocabulary.

desert = α i v τ ο μ ο λ έω, from the side of = π α ρ ά, battle = μ άχη, ή = λ α μ β άνω

in sight $= \kappa a \tau a \phi a \nu \eta s$, és

when $= \eta \nu i \kappa a$ dusk $= \delta \epsilon i \lambda \eta$ cloud of dust $= \kappa o \nu i o \rho \tau \delta s$ some time $= \sigma \nu \gamma \nu \delta s \gamma$

some time $= \sigma \nu \chi \nu \delta \varsigma \chi \rho \delta \nu \delta \varsigma$ darkness $= \mu \epsilon \lambda a \nu \delta a$ immediately $= a \dot{\nu} \tau \delta \kappa a$ vote $= \psi \eta \phi \delta \zeta \delta \rho a \iota$

raise $= \dot{a} \nu a \tau \epsilon i \nu \omega$

32ND ADVANCED ACADEMIC EXAMINATION.

FRENCH.

(Translation at sight.)

Monday, November 19, 1888—Time, 1:30 to 4 P. M. only.

100 credits, necessary to pass, 75.

- 1. Form the feminine of bas, faux, benin, public, frais, long... 3
- 2. Form the plural of chef-d'oeuvre, joujou, éventail, général...
- 3. Compare petite, bien. Form an adverb from heureux..... 3
- 4. Conjugate (a) present subjunctive of faire; (b) imperfect subjunctive of savoir; (c) present indicative of acquérir...... 6
- - 6. Conjugate, interrogatively, the future indicative of s'en aller. 3
- 7. Translate into French: (a) It is fine weather to-day, but it will be very warm to-morrow. (b) You must read all these books which I have just given you. (c) Why did you not go to Paris last week?
 - 8. Translate: Les Pyramides d'Egypte.

La main du temps, et plus encore celle des hommes, qui ont ravagé tous les monuments de l'antiquité, n'ont rien pu jusqu'ici contre les pyramides. La solidité de leur construction, et l'énormité de leur masse, les ont garanties de toute atteinte, et semblent leur assurer une durée éternelle. Les voyageurs en parlent tous avec enthousiasme, et cet enthousiasme n'est point exagéré. commence à voir ces montagnes factices, dix-huit lieues avant d'y arriver. Elles semblent s'éloigner à mesure qu'on s'en approche; on en est encore à une lieue, et déjà elles dominent tellement sur la tête qu'on croit être a leur pied; enfin, l'on y touche, et rien ne peut exprimer la variété des sensations qu'on y èprouve ; la hauteur de leur sommet, la rapidité de leur pente, l'ampleur de leur surface, le poids de leur assiette, la mémoire des temps qu'elles rappellent, le calcul du travail qu'elles ont coûté, l'idée que ces immenses rochers sont l'ouvrage de l'homme, si petit et si faible, qui rampe à leur pied, tout sasit à la fois le coeur et l'esprit d'étonnement, de terreur, d'humiliation, d'admiration, de respect. Mais, il faut l'avouer, un autre sentiment succède à ce premier transport; après avoir pris une si grande opinion de la puissance de l'homme, quand on vient à méditer l'objet de son emploi, on ne jette plus qu'un oeil de regret sur son ouvrage; on s'afflige de penser que, pour construire un vain tombeau, il a fallu tourmenter vingt ans une nation entière; on gémit sur la foule d'injustices et de vexations qu'ont

dû coûter les corvées onéreuses et du transport, et de la coupe, et de l'entassement de tant de matériaux. On s'indigne contre l'extravagance des despotes qui ont commandé ces barbares ouvrages ; ce sentiment revient plus d'une fois en parcourant les monuments de l'Égypte : ces labyrinthes, ces temples, ces pyramides, dans leur massive structure, attestent bien moins le génie d'un peuple opulent et ami des arts, que la servitude d'une nation tourmentée par le caprice de ses maîtres. VOLNEY..... 60

- 9. Give the rule for the agreement of the past participle with the direct object, with an illustration from the above passage... 4
 - 10. Explain the use of l' in the phrase enfin, l'on y touche..... 1

VOCABULARY.

atteinte= injury. = artificial. factice

= to withdraw from. s'éloigner

= to tower (above). dominer

pente == slope. assiette = position. corvée == toil.

entassement = accumulation.

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⁴⁶ University of the State of New York.

32ND ADVANCED ACADEMIC EXAMINATION.

GERMAN.

THURSSDAY, November 22, 1888-Time, 9:30 A. M. to 12 M., only.

92 credits, necessary to pass, 69.

1. Translate:

Hans, der noch sehr jung, aber schon ziemlich leichtsinnigwar, ging eines Tages gänzlich unerwartet auf die Wanderschaft. Wo er eigentlich hin wollte, wußte er nicht. Ob ihn sein Wanderstab hierhin oder dorthin führen werde, war ihm ganz gleich. Er meinte immer, es sei überall viel zu sehen, und man dürse sich deshalb auch nirgends zu lange aufhalten. Tropdem aber saß er zuweilen stundenlang auf einem Berge und stierte träumerisch in die Welt hinein. Bald sah er links, bald rechts, bald vorwärts, bald rückwärts.

So durchwanderte er sorgenlos, aber eigentlich auch zwecklos Städte und Länder und war jederzeit wohlgemuth. Un den wirklichen Zweck des Wanderns dachte er selten und nie ernstlich. "Heute hier, morgen dort und immer lustig und gut leben!" war sein Wahlbruch.

Fünf Jahre war er bereits auf Reisen. Sein Acuseres hatte sich in dieser Zeit merklich verändert. Ein starker Bart bereckte über und über sein Gesicht. Das blühente zarte Roth war längst von den Wangen gewichen. Sie hatten sich tief gebräunt. Sein Körper war hoch aufgesschossen und hatte sich kräftig entwickelt. Seine früher dünne Stimme klang jest ties, voll und männlich

Da beschloß Hans enrlich, wieder heimzukehren. "Db man mich wohl babeim wiedererkennen wird oder nicht?" bachte er still für sich.

Er reiste jest außerordentlich schnell. Nirgends rastete er lange. Er gönnte sich faum Zeit gehörig auszuschlafen. Bald war die heimath ersteicht. Langsam schritt er jest sein Baterdorf entlang. Die Leute gingen stumm und gleichgiltig an ihm vorüber. Niemand erkannte ihn, sogar seine Schwester nicht. Kaum aber erblickte ihn seine Mutter, die zufällig unter der hausthur stand, rief sie ihn sogleich bei seinem Namen und siel ihm gerührt und weinend um den hals-----

ne Schwester nicht. Kaum aber erblickte ihn seine Mutter, die zufällig
ter der Hausthür stand, rief sie ihn fogleich bei seinem Namen und fiel
n gerührt und weinend um den Hald 50
2. Give the principal parts of wußte, aufhalten, saß, beschloß,
[d]rítt
3. Explain the case of eines Tages, of fünf Jahre, of
Schwesier 3
4. Conjugate the present indicative of durfe, of fab
5. Explain the order of words in the clause, Da bestylof Hand 1
6. Compare jung, hody, lange3
7. Decline, in the singular, Ein starker Bart
8. Give a synopsis, in the third singular of all tenses of the in-
dicative, subjunctive and conditional moods, of the verb
bachte, (active voice.)
9. Select from the above passage an adjective used as a sub-
stantive

10. Why is in, l	ine 7, fo	ollowed by the accusative?	1
11. Select from	the abo	ve passage three reflexive verbs	3
12. Translate in	to Gern	nan:	
(a.) A sick mar	ı was asl	ked why he did not send for a physician.	
He replied	, "Beca	use I do not wish to die."	4
(b.) I cannot co	ome, bec	cause I have this work to do	2
(c.) No man sta	ands so	high that he may not fall	2
		VOCABULARY.	
Wanderstab	=	walking-stick.	
überall	=	everywhere.	
nirgends	=	nowhere.	
zuweilen	=	at times.	
Stieren	=	to gaze.	
wohlgemuth	=	cheerful.	

merrily.

appearance.

to develop.

remarkably.

motto.

to rest.

properly. by chance.

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tion.

lustia

Wahlspruch

Außeres

raften

gehörfa

aufällig

entwickeln

außerordentlich =

48 University of the State of New York. 67th Preliminary Academic Examination.

ARITHMETIC.

Turgay November 20 1888 Time 0.20 A M to 19.20 P M only

1 0 12:30 1 . M., Olly
60 credits, necessary to pass, 45.
1. Mention two kinds of notation used in Arithmetic
places to the left?
has each book?. 4. If three men can build a wall in 16 days, in what time can men build it?.
5. Write two numbers, one odd and one even, that are divisible by 13
7. The product of three numbers is 120. Two of the numbers are 6 ² / ₃ and 3 ² / ₄ . What is the other number
a decimal fraction
words
12. Write the table for long measure
yard? 15. A bin that holds 50 bushels is 4 feet long and 3 feet wide
how deep is it?
and in payment of the bill gives his note payable at the Commer cial Bank in 30 days. Make a bill of the above and receipt it 4 17. Find the bank discount and proceeds of the note mentioned
in question 16, discounted May 1, 1888
19. What sum invested in stock at 6 per cent. premium will produce an annual income of \$1,000, the stock paying 8 per cent.
annual dividend?
21. If a field 30 rods long and 20 rods wide cost \$48, how much will a field 50 rods long and 15 rods wide cost? (Solve by pro-
22. The foot of a ladder is 28 feet from the wall of a house and the top of the ladder touches the wall 45 feet from the ground
how long is the ladder?

67TH PRELIMINARY ACADEMIC EXAMINATION.

GEOGRAPHY.

Tuesday, November 20, 1888-Time, 1:30 to 3 P. M., only.

10 ESDA1, NOVEMBER 20, 1000—11me, 1:50 (0.5 1. M., omy.
60 credits, necessary to pass, 45.
1. What is latitude and from what circle is it measured? 2 2. Show by a diagram or drawing and explain, how a degree of longitude at the Tropic of Cancer differs from a degree of longitude at the Arctic Circle.
3. How does the water surface of the globe compare in extent with the land surface?
4. What is an island; a continent; a mountain system; a plateau; a strait?
5. Mention the most populous city of British America 1 6. Mention the most extensive river basin of the United States, and give the names of five states on the eastern slope of the basin
7. Mention and give the location of the largest city not the capital, in each of the following states: Ohio, Pennsylvania, California
8. Which is warmer the climate of Minnesota or that of Oregon? Give a reason for your answer?
10. Mention the principal lake port and the principal seaport of the State of New York and the waters through which boats pass between them by the shortest route
of New York?
12. Mention a canal (not the Erie Canal) in the State of New York, and the names of the bodies of water that it connects 3 13. Mention two important exports of South America and the port from which each is chiefly exported
14. Which is further north, Paris or Boston; Albany or Portland, Oregon?
15. Mention the four principal possessious comprised in the British Empire 4
16. Mention three mountain ranges in southern Europe, and the country in which each is located
17. What countries are separated by the strait of Dover; what countries by the strait of Gibraltar? 4
18. Mention the body of water upon which each of the following is situated: St. Petersburg, Constantinople, Queenstown, Galveston
19. Between what two large countries north and south is Afghanistan located 7
20 Give the location of Mecca and tell for what it is noted?

21 Give the location of Khartoum.....

⁵⁰ University of the State of New York.

67TH PRELIMINARY ACADEMIC EXAMINATION.

GRAMMAR.

WEDNESDAY, November 21, 1888-Time, 9:30 A. M. to 12 M. only.

60 credits, necessary to pass, 45.

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EXERCISE.
1. "Other men are known to posterity only through the medium of history which is continually growing faint and obscure: but the intercourse between the author and his fellow men is ever new, active, and immediate. 2. He has lived for them more than for himself; he has sacrificed surrounding enjoyments, and shut himself up from the delights of social life, that he might the more intimately commune with distant ages."—Washington Irving. 1. Select from the exercise and write in a column the following:
(a) an abstract noun; (b) a noun the direct object of a verb; (c) an adjective that cannot be compared; (d) a pronoun in the pos-
sessive case; (e) an adverb in the comparative degree; (f) two regular verbs
2. Select from the exercise (a) an adverbial phrase denoting manner; (b) an adjective phrase; (c) a relative clause 3
3. How are verbs in the passive voice formed? Select from the exercise a verb in the passive voice
4. Define the potential mode. Select from the exercise a verb in
the potential mode 2
5. Explain the difference between the grammatical (or simple) subject and the logical subject, and give an example of each from
sentence 2 of the exercise
6. Select from the exercise two words that connect clauses and
show what clauses each connects
change the sentence to the corresponding passive form 2
8. Give the principal parts, including the present participles of the following verbs of the exercise: known; shut; is; lived. 4 9. Write sentences using the pronoun who in three different con-
structions (or eases)
10. Write two sentences that illustrate two rules for the use of capital letters
11. Correct the following sentences and give a reason for each
correction:
I do not believe it is him
12. Parse the italicised words of the exercise as follows:
only
$is\ growing$
himself 3
$egin{array}{cccccccccccccccccccccccccccccccccccc$
13. Analyze by diagram or otherwise sentence 1 of the exer-

67TH PRELIMINARY ACADEMIC EXAMINATION.

EXERCISE IN SPELLING.

WEDNESDAY, November 21, 1888-Time, 1:30 to 2:30 P. M., only.

The following numbered words are to be written by each candidate. Let the Principal distinctly and properly pronounce each word (with its number prefixed) allowing sufficient time for writing it before the next word is pronounced.

Direct the candidate to begin each proper name with a capital letter (failure to do which in the case of undoubted proper names will be counted as an error), and all others with a small

letter.

100 credits, necessary to pass, 85.

(1)Election days were (2)times of (3)general (4)gathering. "On (5)these days the (6)pillion was (7)fastened (8)behind the (9)saddle; and the good (10)wife (11)rode with her (12)good man to the (13)seat of (14)government, to truck (15)some of the (16)yarn she had been (17)spinning, for (18)ribbons and other (19)foreign goods, as well as to gather up the (20)gossip of the year. On (21)such (22)occasions a (23)store of cake was (24)provided (25)beforehand, and 'election-cake' is (26)consequently one of the (27)institutions (28)received from our (29)fathers." Atwater.

(30) Thanksgiving was the (31) great (32) festal day of the year. In its general (33) features and (34) spirit, it is (35) observed now very (36) much as in (37) colonial times. It was the day when (38) children and grand-children gathered in the old (39) homestead with (40) joyous (41) greetings. The (42) table (43) fairly (44) groaned (45) beneath the good things that had been provided by the (46) noble (47) mothers and (48) danghters, who had (49) reason to be (50) proud of (51) their (52) skill in (53) preparing all (54) kinds of (55) appetizing (56) dishes. The (57) male (58) members of the (59) family were (60) faithful in their (61) attendance upon the (62) service of (63) public (64) worship in the (65) morning, but the (66) rest of the day was (67) filled with home (68) festivities.

The (69)gift of corn was (70)especially (71)remembered. The (72)injunction of an old (73)Puritan (74)minister was (75)common: "Of all other things on the table you may eat, but of the (76)Indian (77)pudding you must eat." It was of this dish that Joel Barlow, the (78)famous (79)Connecticut (80)poet, (81)wrote these lines:

"Ye (82) Alps (83) audacious, (84) through the (85) heaven that rise To (86) cramp the day, and (87) hide me from the (88) skies, I sing not you. A (89) softer (90) theme I (91) choose. I (92) sing the sweets I (93) know, the (94) charms I (95) feel, My morning (96) incense, and my (97) evening (98) meal, The (99) sweets of (100) Hasty Pudding."

"History of Connecticut."—Sanford.

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